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Highlights from this issue

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NEW EDITOR IN CHIEF

It gives me great pleasure to announce that our new Editor in Chief is Dr Nick Brown. He will assume the role on 1st October; this will enable me to stand down from my interim position, but because of the lag between finalising copy and publishing each edition, you will see my name on the Atoms in *ADC* until Nick's appears in the December issue. Readers will remember that Nick has been with *ADC* for some years. His day job is as a general paediatrician in Salisbury, and his strong international links have enabled him to look after our Global Child Health section. He will bring both continuity and renewal to the Journal and I know that I speak for all my Associate Editor colleagues in wishing him well for his tenure.

CONGENITAL CYSTIC LUNG LESIONS

Readers of *F&N* who only skim *ADC* might like to take a closer look at a paper by Cook *et al* which analyses a large series (119 cases) of antenatally diagnosed cystic lung lesions. It has never been clear as to whether these lesions should always be removed, always left alone, or left alone unless or until symptoms develop. The latter course seemed sensible until another recent paper noted by Hyperion in July (*Pediatrics* 2017;139:e20162988) suggested that operation tended to make respiratory symptoms worse not better. Cook *et al* make a cogent case for a generally conservative approach and these data should help when counselling parents after the antenatal detection of these lesions. See *ADC*, page 799.

GESTATIONAL AGE AND EDUCATIONAL OUTCOME

Associations between prematurity per se, and outcomes of various kinds, are subject to very high risks of confounding by unmeasured or unknown variables that are themselves causal of, or associated with, being born preterm. It is more difficult to explain away such apparent associations when they are found for babies of all

gestations, not just preterm. Searle *et al* report their findings when educational data on over 28 000 school children in South Australia at the age of 8 were linked with routinely collected maternal and perinatal data: the effect of GA persisted after adjustment for a large number of potentially confounding variables, and remained constant among babies born preterm, term and even post-term with no J or U shaped relationship. Powerful though this association is, it does not follow that strategies to delay delivery (for example, by ensuring that elective deliveries were routinely programmed for later gestational ages) would necessarily result in better outcomes at school age. To know that, we would need plausible mechanisms and large clinical trials. See page F409.

PROPRANOLOL AND RETINOPATHY

There is increasing interest in the possibility that propranolol might be effective as a prophylactic against retinopathy of prematurity, so the outcome of the trial reported by Sanghvi *et al* is in a sense disappointing: there was no clear advantage over placebo for 0.5 mg/kg given 12 hourly from postnatal day 7 until 37 weeks' post-menstrual age, though the direction of effect favoured propranolol. The trial was underpowered and the mean gestational age of the participants was 29 weeks. Others are studying the effect of propranolol given intra-nasally, in larger trials, and to babies with a higher intrinsic risk of ROP. Given that blindness from ROP is becoming epidemic in resource-poor settings, the possibility that a very inexpensive drug might be able to reduce the rate of ROP is, in principle, very exciting. We just need some proof. See page F389.

CARBON DIOXIDE NARCOSIS

Carbon dioxide narcosis is well known in adult medicine; it tends to occur when there is a sudden uncompensated rise in PCO₂. Weeke *et al* report an opportunistic sample of hypercarbic episodes

in 25 babies, all but 4 of which were preterm, in whom continuous amplitude integrated EEG or 2-channel EEG was recorded along with intermittently measured PCO₂. The results were quite striking: significant acute elevations of PCO₂ (>9 kPa) were mostly, but not invariably, accompanied by a profound reduction in cerebral electrical activity regardless of gestational age. These data are preliminary and their significance is uncertain, but it seems likely that the phenomenon they observed was similar to that seen in adults, though the manifestation was different. See page F383.

AUTOMATED OXYGEN CONTROL

Now that we know that in general it seems better to aim for higher rather than lower oxygen saturations within the normal range for preterm babies, many groups have sought ways to ensure that babies remain, as far as possible, within the optimum target range for SPO₂. Even with the most attentive nursing care, this is tricky when done manually in response to changing saturation values, especially in those babies whose oxygen saturation values swing rapidly into hyperoxia and then to hypoxia with seemingly little time in the target range. Automating the response to changing saturations has long been intuitively attractive and there are now many papers reporting the effectiveness of different ways of doing this. Van Zanten *et al* used a before-and-after design to report the impact of using automated oxygen control for a defined period of time with manual methods both preceding and following the period of automation. Although overall the group differences were small, they found significant and clinically important reductions in the amount of time babies were hyperoxic, with no difference in the time for which they were hypoxic. Their results are encouraging but it will be important to see whether rigorous trials of automated oxygen control show that its use translates into worthwhile improvements in outcome, such as a lower rate of ROP. See page F395.